Public Participation Strategy for Sustainable Water Resource Governance in the Lower Mekong Basin:

A Policy Case Study from the Mekong River Commission

SOPHEAK MEAS
MA Student in Journalism and Communication
School of Arts and Media
The University of New South Wales

Abstract

Public participation in water resources management is considered as the primary goal and value for realizing economically sustainable, socially just and environmentally sound governance. However, scant attention has been given to this area over the past decades. In the Lower Mekong Basin, previous studies have indicated that efforts by the Mekong River Commission to include a public participation strategy into its water governance framework were challenging. Nonetheless, no study, if any, has examined this policy uptake using a science-policy interface lens. Thus, this article aims to fill this gap, by exploring what made the MRC adopt this strategy, what challenges and opportunities it faced in doing this and in trying to implement the strategy, and what constitutes public participation in this context. The analysis has indicated various aspects of policy uptake in this context, including the political context within the MRC governance, roles of external influences and research evidence, and the role of knowledge brokers. Various lessons learned are also drawn in the concluding part.

Introduction

A total of 145 countries shares the world's 263 international basins,[1] covering almost 50% of the earth's surface.[2] Managing such transboundary river basins has been difficult but is essential, for water

[1] Meredith A. Giordano and Aaron T. Wolf. 2003. "Sharing waters: Post-Rio international water management." *Natural Resources Forum* 27:163-171.

[2] Aaron T. Wolf, Jeffrey A. Natharius, Jeffrey J. Danielson, Brian S. Ward, and Jan K. Pender. 1999. "International river basins of the world." *International Journal of Water Resources Development* 15 (4):387-427.

is both a source of conflict and life.[3] As such a rising number of river basin cooperation agreements have emerged.[4] However, as Milich and Varady argue, no explicit provisions on public participation were found in most of these agreements,[5] despite its crucial role and value for realizing economically sustainable, socially just, and environmentally sound governance.[6] It is only until recently that public participation in water resources governance has gained significant attention.[7]

In the Lower Mekong Basin (LMB), studies by Chenoweth, Ewing, and Bird and Sneddon and Fox have indicated that efforts by the Mekong River Commission (MRC) to include a public participation strategy into its water governance framework were challenging[8] However, no study, if any, has examined this policy uptake using a science-policy interface lens. This article, thus, aims to fill this gap, by exploring what made the MRC adopt this strategy, what challenges and opportunities it has faced in doing this and in trying to implement the strategy, and what constitutes public participation in this particular context. Structured around these aims, the paper begins by looking at the meaning and importance of public participation. This is followed by the discussion of what science-policy interfaces are and how they work. It then provides the general context of the Mekong River and its sustainable development challenges before discussing factors leading up to the adoption of the strategy. A brief discussion on the creation of the MRC and its 1995 Mekong Agreement is also provided. With this necessary understanding, the paper then analyzes outcomes of the strategy, focusing on opportunities and challenges created by it. The concluding part examines how

---

[3] Carl Bruch, Libor Jansky, Mikiyasu Nakayama, Kazimierz A Salewicz, and Angela Cassar. 2005. "From theory to practice: An overview of approaches to involving the public in international watershed management." In *Public participation in the governance of international freshwater resources*, edited by Carl Bruch, Libor Jansky, Mikiyasu Nakayama and Kazimierz A Salewicz, 3-18. Tokyo: United Nations University Press; Ian C. Campbell. 2009. "The challenges for the Mekong River management " In *The Mekong: Biophysical environment of an international river basin*, edited by Ian Champbell, 403-419. New York: Academic Press.

[4] Oliver Hensengerth. 2009. "Transboundary river cooperation and the regional public good: The case of the Mekong River." *Contemporary Southeast Asia* 31 (2):326, 328-329.

[5] L. Milich and R. G. Varady. 1999. "Openness, sustainability and public participation: New designs for transboundary river basin institutions." *Journal of Environment & Development* 17:215-246.

[6] Erik Mostert. 2003. "The challenge of public participation." *Water Policy* 5 (2):179-197; Jerome Delli Priscolli. 2004. "What is public participation in water resources management and why is it important?" *Water International* 29 (2):221-227; Jona Razzaque. 2009. "Public participation in water governance." In *The evolution of the law and politics of water*, edited by J. W. Dellapenna and J. Gupta, 353-371. Springer Netherlands; Chris Sneddon and Coleen Fox. 2007. "Power, development, and institutional change: Participatory governance in the Lower Mekong Basin." *World Development* 35 (12):2161-2181.

[7] Gul Ozerola and Jens Newig. 2008. "Evaluating the success of public participation in water resources management: Five key constituents." *Water Policy* 10 (4):423; Razzaque. 2009.

[8] Jonathan L. Chenoweth,, Sarah A. Ewing, and Juliet F. Bird. 2002. "Procedures for ensuring community involvement in multijurisdictional river basins: A comparison of the Murray-Darling and Mekong River Basins." *Environmental Management* 29 (4):497-509; Chris Sneddon and Coleen Fox. 2006. "Rethinking transboundary waters: A critical hydropolitics of the Mekong basin." *Political Geography* 25 (2):181-202.

science-policy interfaces have occurred in the case, from which different lessons are drawn.

Public participation and its importance in water resource management

Public participation is the involvement of people or groups who are negatively or positively affected by, or are interested in, a proposed plan, project or policy that is subject to processes of decision-making.[9] Public participation allows people, in collaboration with authorities, to share, negotiate, and regulate this decision-making.[10] The authorities are to inform the public, who in turn reports its views back to them, about policy developments, in order to create a process potentially influencing decision-making.[11] However, not only does public participation require the exchange of information, but it also seeks to have the "true sharing of power and responsibility" between the public and authorities.[12] Public participation, as Creighton argues, has three essential goals.[13] Firstly, it offers credibility to the course of decision-making; secondly, it enables the recognition of concerns and values of the public; and, thirdly, it can stimulate consensus-building between the public and authorities. In the water sector, public participation is regarded as the initial basic feature for effective water governance.[14] However, when it comes to the context of transboundary river basin management, encompassing scale and complexity issues of institutional arrangements, public participation becomes a particularly tough subject to both define and implement.[15] This may be true for the MRC context.

Science-policy interfaces: how they are defined and how they work

Van den Hove defines science-policy interfaces (SPIs) as "social processes which encompass relations between scientists and other actors in the policy process, and which allow for exchanges, co-evaluation, and joint construction of knowledge with the aim of enriching decision making".[16]

---

9 Bert Enserink and Mariachiara Alberton. 2016. "Public participation in China: strengths, weaknesses, and lessons learned." *Journal of Environmental Assessment Policy and Management* 18 (1):1-21, 2; ECD. 2015. Stakeholder engagement for inclusive water governance. In *OECD Studies on Water*. (Paris: Organisation for Economic Co-operation and Development Publishing), 32.

10 Ozerola and Newig. 2008; N. Videria, P. Antunes, R. Santos, and G. Lobo. 2006. "Public and stakeholder participation in European water policy: A critical review of project evaluation processes." *European Environment* 16:19-31.

11 A. MacKay. 1998. Concepts and process of public participation: Conceptual briefing note. In *Public participation in electric power projects (an emerging issue in Asia)*, edited by UNESCAP. Bangkok; Mostert. 2003.

12 Chenoweth, Ewing, and Bird. 2002.

13 James L. Creighton. 1981. *Public involvement manual: Involving the public in water and power resources decisions*. Cambridge: Abt Books.

14 Razzaque. 2009.

15 John Dore and Louis Lebel. 2010. "Deliberation and scale in Mekong region water governance." *Environmental Management* 46:60–80; Sneddon and Fox. 2007.

16 Sybille van den Hove. 2007. "A rationale for science–policy interfaces." *Futures* 39 (7):807-826, 810,811,824.

Fig. 1. *The Mekong River Basin*

Drawing on the studies of Vatn and Young, Koetz, Farrell, and Bridgewater offer an alternative definition of SPIs as "institutional arrangements that reflect cognitive models and provide normative structures, rights, rules and procedures that define and enable the social practice of linking scientific and policy-making processes".[17] While van den Hove's definition seems broad but captures both formal bureaucracies and informal interactions between the science and policy sphere, the one offered by Koetz et al. is narrow and centers mainly around institutional arrangements. Never-

[17] A. Vatn, A. 2005. 'Rationality, institutions and environmental policy', *Ecological Economics,* 55, 203-217; O.R. Young. 2008. 'Institutions and environmental change. The scientific legacy of a decade of IDGEC research' in*:* Young, O R, King, L A and Schroeder, H (eds.), *Institutions and environmental change: Principal findings, applications, and research*, MIT Press, Cambridge, 3-46; T. Koetz, K.N. Farrell, and P. Bridgewater. 2011. 'Building better science-policy interfaces for international environmental governance: Assessing potential within the Intergovernmental Platform for Biodiversity and Ecosystem Services', *International Environmental Agreements: Politics, Law and Economics,* 12, 1-21, 2.

theless, the notion of SPIs clearly underscores the intersection between scientists and policy-makers in the process of knowledge production for better-informed decision-making.

In an attempt to examine how SPIs operate, three theoretical approaches emerge: the rational, the constructivist, and the pragmatic approach. The rational approach, also known as the traditional, linear or technical model, is based on the central premise that policy-makers should systematically collect information and consider every alternative prior to making the best decision objectively.[18] In other words, scientific evidence is called upon and used in the policy-making and implementing processes, which then creates an intersection between science and policy.[19] However, this approach has suffered a serious blow as overtly plain and critically misleading,[20] primarily because the "reality tends to be much more dynamic and complex, with two-way processes between research, policy, and practice, shaped by multiple relations and reservoirs of knowledge".[21]

Such growing dissatisfaction has given rise to the constructivist perspective. Under this perspective, knowledge construction is viewed as not merely through the existence of objective truth, but through social assumptions and norms[22] that involve creating interactive forms of decision-making where multiple views are sought.[23] Van den Hove sees this as "the co-evolution of subjective and objective knowledge" whose combination has the potential to create the interface between science and policy.[24] Nonetheless, it has been acknowledged that a legitimate policy or decision cannot be made only through broad stakeholder engagement if it contradicts findings of the scientific community.[25]

The pragmatic model seeks to address the complexity involved in the two perspectives. It acknowledges the know-

---

[18] F. Fischer. 1998. 'Beyond empiricism: Policy inquiry in postpositivist perspective', *Policy Studies Journal,* 26, 129-146, 130-131.

[19] Julius Court and John Young. 2006. "Bridging research and policy in international development: An analytical and practical framework." *Development in Practice* 16 (1):85-90, 85; S. Owens. 2005. 'Making a difference? Some perspectives on environmental research and policy', *Transactions of the Institute of British Geographers,* 30, 287-292, 288; A. Smajgl and J. Ward. 2013. 'A framework to bridge science and policy in complex decision making arenas', *Futures,* 52, 52-58, 53; van den Hove. 2007, 811, 810.

[20] E.C. McNie. 2007. 'Reconciling the supply of scientific information with user demands: An analysis of the problem and review of the literature', *Environmental Science & Policy,* 10, 17-38; R. Sutton,. 1999. The policy process: an overview. London: Overseas Development Institute.

[21] Court and Young. 2006, 85.

[22] A.L. Guske, G. Richards, J. Ferretti, E. Kunseler, W. van Enst, and L. Pettibone. 2015, Understanding science-policy interfaces. *In:* Weiland, S and Podhora, A (eds.) *Research gaps impact assessment: Novel perspectives of young researchers.* LIAISEoffspring Network, 11-12.

[23] P. Healey. 2008. 'The pragmatic tradition in planning thought', *Journal of Planning Education and Research,* 28, 277-292.

[24] van den Hove. 2007, 811, 810.

[25] S. Jasanoff. 1994, *The fifth branch: Science advisers as policymakers,* Harvard University Press, Cambridge; M. Hesse. 2015. 'The science-policy interface', *disP - The Planning Review,* 51, 4-5.

ledge, skills, and judgment of experts who consider stakeholder participation as a necessary means to accomplish credible scientific knowledge production and incorporates uncertainties of perspectives and values among stakeholders.[26] The experts, in ensuring the relevance of information, also heed attention about timescales, scope, and perceived legitimacy of the research produced.[27] It is in this model that "the strict separation between the functions of the expert and the politician is replaced by a critical inter-relation," which "precisely creates an intersection between science and policy".[28]

General context of the Mekong River and sustainable water resources development challenges

Beginning its 4,800-kilometer journey on the Tibetan Plateau, the Mekong River flows through China's Yunnan province, Myanmar, Thailand, Laos, Cambodia and Vietnam (Fig. 1).[29] It is the longest river in Southeast Asia and world's tenth-largest river, with 795,000 km^2 of catchment area.[30] The LMB is home to 65 million people, and by 2060 this may reach 83 million.[31] About 80-85% of them are rural poor, who depend heavily on the river and its related resources for their livelihoods.[32] Regarding biodiversity, the Mekong is considered the second most biodiverse river in the world.[33]

---

[26] B. Flyvbjerg. 2006. 'Social science that matters', *Foresight Europe,* 2, 38-42, 38.

[27] D. Cash, W. Clark, F. Alcock, N. Dickson, N. Eckley, and J. JägerJ. 2002. Salience, credibility, legitimacy and boundaries: linking research, assessment and decision making. *Faculty Research Working Papers Series: RWP02-046.* Cambridge: Harvard University.

[28] J. Habermas, J. 1971. *Towards a rational society: student protest, science, and politics,* Beacon Press, Boston, 66.

[29] MRC. 2011c. *Planning atlas of the Lower Mekong Basin*. Vientiane: Mekong River Commission Secretariat.

[30] Daming He and Hsiang-te Kung. 1997. "Facilitating regional sustainable development through integrated multi-objective utilizing management of water resources in the Lancang-Mekong River basin." *The Journal of Chinese Geography* 7 (4):9-21; Jeffrey W. Jacobs. 2002. "The Mekong River Commission: transboundary water resources planning and regional security." *The Geographical Journal* 168 (4):354-364; MRC. 1995b. Annual report 1995. Bangkok: Mekong River Commission Secretariat.

[31] MRC. 2016a. *Integrated water resources management-based Basin Development Strategy 2016-2030 for the Lower Mekong Basin*. Vientiane: Mekong River Commission Secretariat, 25, 2.

[32] Ian C. Campbell. 2011. "Managing international river basins: successes and failures of the Mekong River Commission." In *Water Resources Planning and Management*, edited by R. Quentin Grafton and Karen Hussey, 724-740. Cambridge: Cambridge University Press; Patrick J. Dugan , Chris Barlow, Angelo A. Agostinho, Eric Baran, Glenn F. Cada, Daqing Chen, Ian G. Cowx, John W. Ferguson, Tuantong Jutagate, Martin Mallen-Cooper, Gerd Marmulla, John Nestler, Miguel Petrere, Robin L. Welcomme, and Kirk O. Winemiller. 2010. "Fish migration, dams, and loss of ecosystem services in the Mekong basin." *Ambio* 39 (4):344-348; MRC. 2016a, 25, 2.

[33] Kent G. Hortle . 2009. "Fishes of the Mekong - How many species are there." *Catch and Culture* 15 (2):4-12; Guy Ziv, Eric Baran, So Nam, Ignacio Rodríguez-Iturbe, and Simon A. Levin. 2012. "Trading-off fish biodiversity, food security, and hydropower in the Mekong River Basin." *Proceedings of the National Academy of Sciences* 109 (15):5609-5614.

Table 1. Chinese hydropower dams

Name	Catchment (km^2)	Average inflow (million m^3)	Installed capacity (MW)	Annual energy (GWh)	Status (2012)	Commission year
Gongguoqiao	97,200	31,060	759	3,940	operation	2008
Xiaowan	113,300	38,470	4,200	18,890	operation	2010
Manwan	114,500	38,790	1,500	7,600	operation	1996
Dachaoshan	121,000	42,260	1,350	6,710	operation	2003
Nuazhadu	144,700	54,600	5,850	23,900	impounding	2016
Jinghong	149,100	58,030	1,750	7,620	operation	2010
Ganlanba	151,800	59,290	150	780	planned	n/a
Mengsong	160,000	63,700	600	2,890	cancelled	cancelled

Source: Hydropower project database[34]

Since the 1950s, based on data from the MRC Secretariat, the Mekong has witnessed a spate of dam building proposals on the mainstream (Fig. 2).[35] In China – the upper basin – five dams are already in operation and three others are at various stages of development (Table 1). In the LMB, at least 11 dam sites have been proposed for the mainstream and 135 others on the tributaries (Table 2). Potential impacts from these projects on environmental, social, and economic aspects can be substantial for the Mekong.[36]

As the projects are moving ahead under the rhetoric of economic development, Rieu-Clarke suggests that it be critical that "all stakeholder interests are reconciled in an equitable, legitimate, and transparent manner" to achieve sustainable water

[34] MRCS. 2014. Hydropower project database. Vientiane: Mekong River Commission Secretariat

[35] Ibid.

[36] DR and DHI. 2015. "Study on the impacts of mainstream hydropower on the Mekong River ("Delta Study"): final report". Hanoi: Vietnam's Ministry of Natural Resources and Environment; Louis Lebel, Po Garden, and Masao Imamura. 2005. "The politics of scale, position, and place in the governance of water resources in the Mekong region." *Ecology and Society* 10 (2):1-19; Seungho Lee. 2015. "Benefit sharing in the Mekong River Basin." *Water International* 40 (1):139-152.

resources development.[37] Being the single intergovernmental organization in the LMB, the MRC has an essential role to play here, serving as the "platform for regional cooperation on the management of water-related resources for sustainable development of the LMB".[38]

Table 2. Hydropower dams in the Lower Mekong Basin

Country	Project summary	Project status (as of 2014)				
		In operation	**Under construction**	**Under license**	**Planned**	**Total**
Cambodia	Project	1	1	0	18	20 *(18 in tributaries)*
	Capacity (MW)	1	400	0	4,739	5,140
	Annual energy (GWh)	3	1,954	0	22,400	24,356
	Investment (Million U$)	7	943	0	17,106	18,056
Laos	Project	22	24	17	39	102 *(95 in tributaries)*
	Capacity (MW)	3,226	4,625	3,823	5,814	17,487
	Annual energy (GWh)	15,265	18,581	19,885	22,956	76,687
	Investment (Million U$)	3,869	7,967	7,288	18,692	37,816
Thailand	Project	7	0	0	0	7 *(all in tributaries)*
	Capacity (MW)	745	0	0	0	745
	Annual energy (GWh)	904	0	0	0	904
	Investment (Million U$)	1,940	0	0	0	1,940

[37] Alistair Rieu-Clarke, Alistair. 2015. "Transboundary hydropower projects on the mainstream of the Lower Mekong River - The case of public participation and its national implications for basin states." In *Public participation and water resources management: Where do we stand in international law?*, edited by Mara Tignino and Komlan Sangbana, 91-97. (Geneva: United Nations Educational, Scientific and Cultural Organization), 93.

[38] Tuan Phan Pham. 2016. "Letter to the editor: The MRC, a platform for cooperation" *The Phnom Penh Post*.

	Investment (Million U$)	2,948	304	0	97	3,349
Laos-Thailand	Project	0	0	0	2	2 (*all in mainstream)*
	Capacity (MW)	0	0	0	2,951	2,951
	Annual energy (GWh)	0	0	0	13,752	13,752
	Investment (Million U$)	0	0	1,788	2,452	4,240
Total	Project	43	26	17	60	146 *(135 in tributaries)*
	Capacity (MW)	6,329	5,275	3,823	13,562	28,988
	Annual energy (GWh)	27,356	21,591	19,885	59,289	128,121
	Investment (Million U$)	8,764	9,213	9,076	38,347	65,401

Source: Hydropower project database[39]

[39] MRCS. 2014.

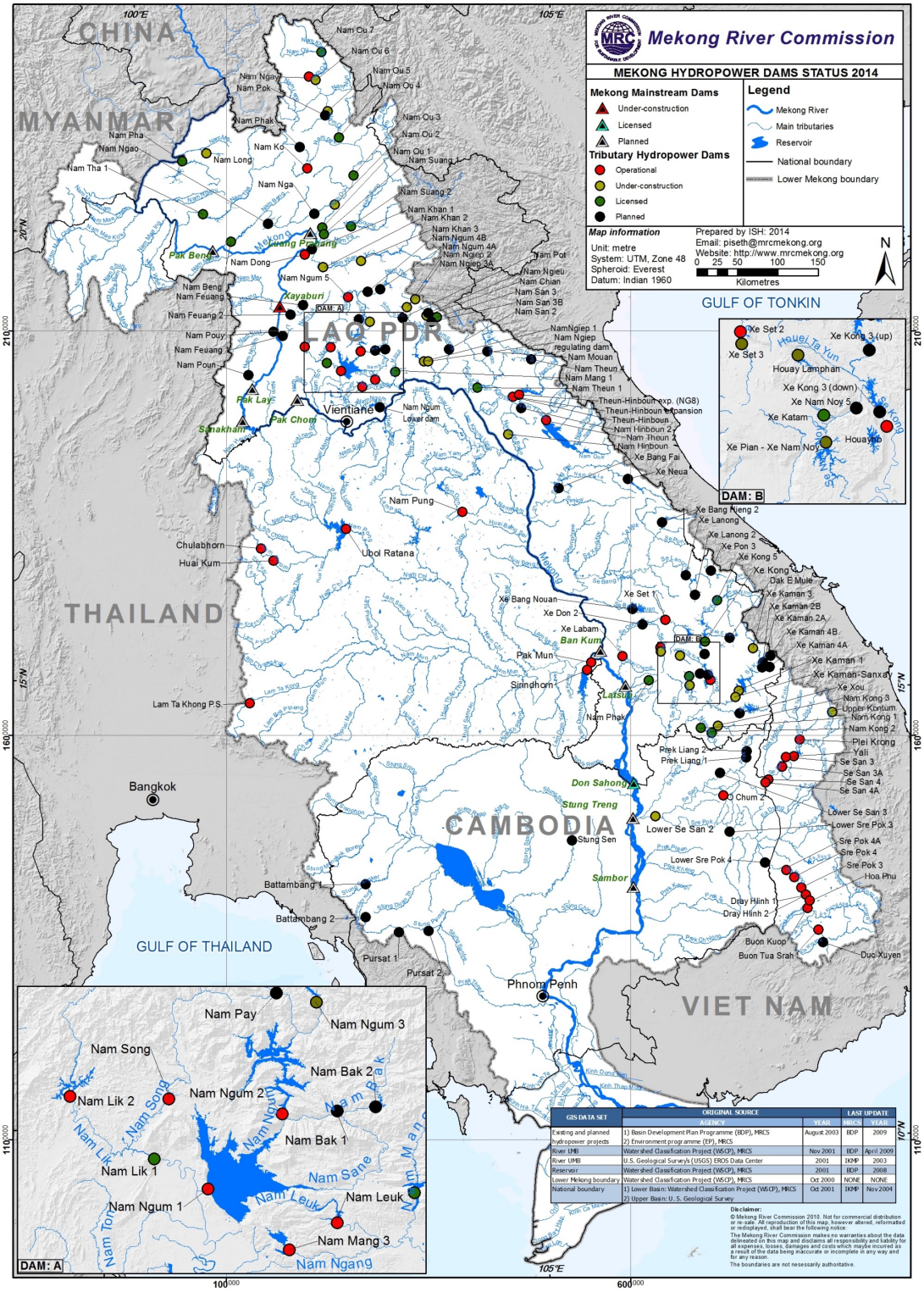

Fig. 2. *Existing and planned hydropower projects in the Mekong River*[40]

[40] MRCS. 2014.

The Mekong River Commission (MRC), the 1995 Mekong Agreement and its public participation strategy

The Mekong cooperation history dates back to 1957 when the Mekong Committee (MC) was founded under a statute endorsed by the United Nations, allowing Cambodia, Laos, Thailand, and Vietnam to work together on the development of the Mekong River.[41] This 1957 Mekong Agreement was shaped by political goals and motivated by economic rationale, especially in the hydropower potential of the river and its tributaries.[42] Despite warfare in Cambodia and Vietnam during the 1960s, the MC and its Secretariat still managed to craft plans to transform the Mekong waters into development assets as a key to boosting economic growth through hydropower for advanced industrialization and improved irrigation.[43] However, as Sneddon and Fox point out, the MC member countries and its donors took little heed to the adverse environmental and social impacts, potentially resulting from dam construction.[44] As the war and violence continued to intensify, Cambodia withdrew its membership from the MC, leaving the other three countries to establish the Interim Mekong Committee (IMC) in January 1978.[45] The core focus of the IMC at that time remained largely the same – dam building[46] – although with little funding from donors.[47] During the periods of MC and IMC, development in the LMB was neither participatory nor inclusive, where policies to include public concerns and those who would be affected by the development in decision-making had never been a priority.[48]

It was not until 5 April 1995 when Cambodia, Laos, Thailand and Vietnam adopted the *Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin,* which established the MRC, did public participation and participatory governance polices begin to gain attention.[49] The 1995 Mekong Agreement, though without precise reference to public participation, does oblige its member countries to "cooperate in all fields of

---

41 Jacobs. 2002; MRC. 1995b; MRC. 2013. *Mekong basin planning: The story behind the Basin Development Plan*. Vientiane: Mekong River Commission Secretariat.

42 Philip Hirsch . 2001. "Globalization, regionalization and local voices: tThe Asian Development Bank and rescaled politics of environment in the Mekong region." *Singapore Journal of Tropical Geography* 22 (3):237–251, 3-5; Philip Hirsch and Kurt Mørck Jensen. 2006. National interests and transboundary water governance in the Mekong. Sydney: The University of Sydney.

43 Hirsch and Jensen. 2006.

44 Sneddon and Fox. 2007.

45 Jacobs. 2002.

46 Jeffrey W. Jacobs. 1995. "Mekong Committee history and lessons for river basin development." *The Geographical Journal* 161 (2):135-148.

47 Campbell. 2011.

48 Sneddon and Fox. 2007.

49 Hensengerth. 2009.

sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin".[50] It also sets out the institutional framework to support the Agreement implementation, with the MRC comprising of three permanent bodies: the Council, the Joint Committee (JC), and the Secretariat (Fig. 3).[51] The Council is composed of one representative at the ministerial and cabinet level from each member country and makes all policy decisions. The JC, made up of one representative at head of department level or higher from each member country, implements the Council's decisions. The MRC Secretariat, managed by a Chief Executive Officer (CEO), renders technical and administrative services to the Council and JC.

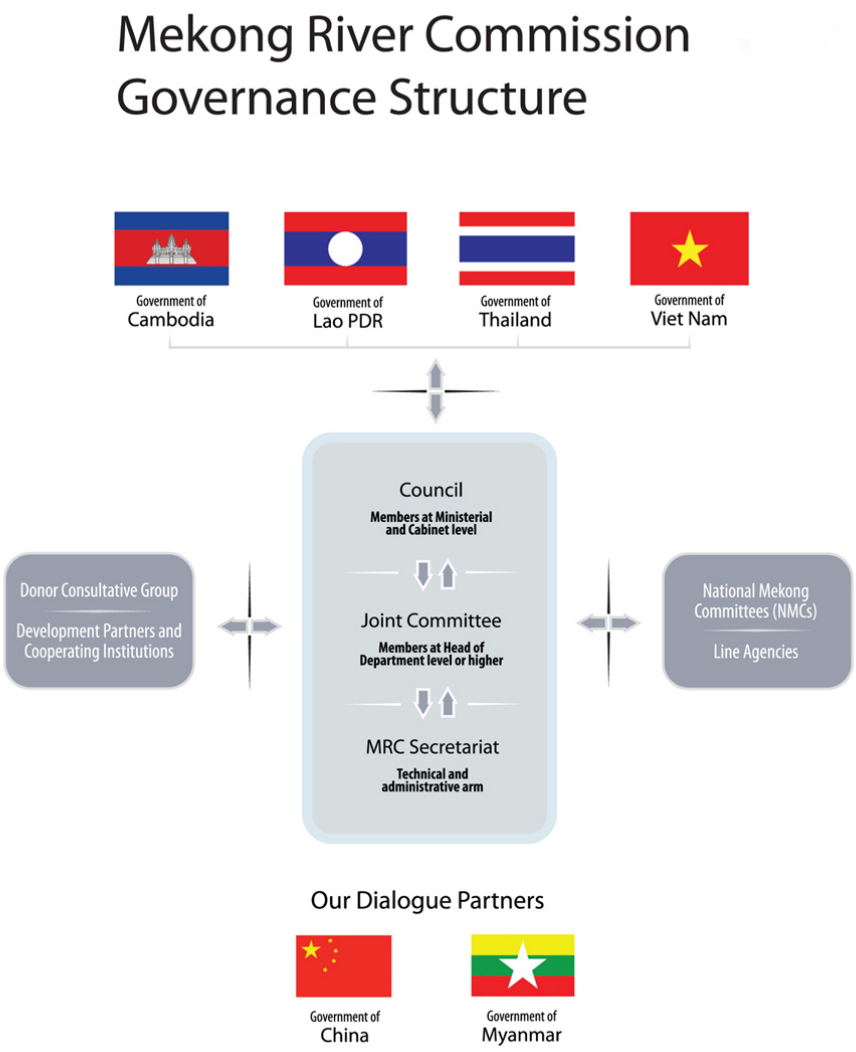

Fig. 3. *MRC governance structure* [MRC. 2010a.]

[50] MRC. 1995a. Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin. Chaing Rai: Mekong River Commission Secretariat, 3.

[51] MRC. 2010a. Annual report 2010. Vientiane: Mekong River Commission Secretariat.

Following the signing of the 1995 Mekong Agreement, the JC approved a proposal to conduct a *Study on Public Participation in the Context of the MRC* in late 1996, recognizing that the "involvement of public and the public opinion in the work of MRC is […] a prerequisite for the overall aim and vision of our Mekong Agreement".[52] A team of international consultants was com-missioned to undertake the study, which was completed in mid-1998.[53] At the 9th Meeting of the JC in March 1999, a statement on public participation was endorsed and, later in 2003, an *MRC Public Participation Strategy* was approved.[54] The strategy defines public participation as "a process through which key stakeholders gain influence and take part in decision making in the planning, implementation, monitoring, and evaluation of the MRC programs and projects," and includes four levels of participation: information gathering, information dissemination, consultation, and participation.[55] It also categorizes participants into two primary groups: the MRC and its government line agencies as "internal" and all others as "external". Although some scholars[56] view this strategy as crude and vague, it has become the primary foundation to guide the inclusion of a participatory approach into the *Basin Development Strategies* (BDS) 2011-2015 and 2016-2020 for the LMB. The BDS is a five-year strategic action, which "provides an integrated basin perspective for the assessment and improvement of national plans and projects to ensure an acceptable balance between economic, social and environment outcomes in the basin, and mutual benefits to the MRC member countries," where "regional and national stakeholder participation will be built and enhanced upon the development processes of the strategy, respecting community and wider popular participation approaches in each country".[57]

It is worth examining some narrative development leading up to the adoption of the public participation strategy and the inclusion of the participatory approach in the BDS. Throughout the MC and IMC periods up to 1995, the prominent anti-dam International Rivers Network and Thai NGOs advocated strongly for a major overhaul of the Mekong water governance vision. They used adverse impacts and

---

[52] MRC. 2003. Public participation in the context of the MRC. Phnom Penh: Mekong River Commission Secretariat, 1, 3-5.

[53] Yasunobu Matoba. 1999. "Stakeholder participation and Mekong River Commission." The Regional Seminar on Institutional Options for River Basin Management, Manila.

[54] Ibid.

[55] MRC. 2003, 1, 3-5.

[56] Chenoweth, Ewing, and Bird. 2002.

[57] MRC. 2016a, 25, 2; MRC. 2011a. *Integrated water resource management-based Basin Development Strategy 2011-2015 for the Lower Mekong Basin*. Vientiane: Mekong River Commission Secretariat, 32.

experiences from numerous dam and water diversion projects in Thailand, particularly the Pak Mun Hydropower Project,[58] to lobby the MRC donor community, arguing that the Mekong governments simply excluded the affected communities in their decision-making process and largely resisted suggestions and critiques.[59] Subsequently, the donor community made a condition in their funding to the organization, calling it to take an appropriate action to have a policy on public participation. With the increased pressure from the civil society organizations (CSOs) and the donors, the MRC Secretariat managed to convince the JC to adopt the mentioned public participation strategy in 2003.

These CSOs, however, did not stop there. Thailand's Project for Ecological Recovery and the Southeast Asian Rivers Network, to name just a few, used different experiences from other hydroelectric projects in the Mekong to direct their advocacy campaigns toward the MRC and donors.[60] These experiences were predominantly the research findings and recommendations from the World Commission on Dams on the value of incorporating a participatory approach in decision-making at every stage of large-scale infrastructure projects. The donor community then bought in, calling for the MRC to include in its future develoment planning the opinions and concerns of those previously excluded.[61] With the repeated pressure and the political and economic changes in the region, the MRC Secretariat's CEOs were able to bring the new chapter of public participation and participatory governance into the development planning of the MRC – that is the BDS – with the approval from the JC and Council.[62]

Analysis of outcomes of the MRC public participation strategy

The MRC public participation strategy has enabled the participatory approach to grow within the Mekong water governance, allowing the historically excluded groups (e.g., affected communities along the Mekong) to participate in the development planning and decision-making processes. The MRC consulted extensively with different stakeholder groups (e.g., government agencies, CSOs, community representatives, research institutions, etc.) in its member countries during the develop-

---

[58] Skachai Amornsakchai, Philippe Annez, Suphat Vongvisessomjai, Sansanee Choowaew, Prasit Kunurat, Jaruwan Nippanon, Roel Schouten, Pradit Sripapatrprasite, Chayan Vaddhanaphuti, Chavalit Vidthayanon, Wanpen Wirojanagud, and Ek Watana. 2000. Pak Mun Dam Mekong River basin Thailand: World Commission on Dams case study. Cape Town: Secretariat of the World Commission on Dams.

[59] Sneddon and Fox. 2006.

[60] Sneddon and Fox. 2007.

[61] MRCS. 1999. Minutes of the 4th Meeting of the MRC Council (classified). Phnom Penh: Mekong River Commission Secretariat.

[62] Hensengerth. 2009; Joern Kristensen. 2002. "Civil society and river basin development." *Mekong Update & Dialogue* 5 (2):4-5.

ment processes of its BDS[63] and the prior consultation processes of the proposed Laos' Xayaburi and Don Sahong Hydropower Projects.[64] This participatory approach with enhanced public participation strategy was also the essence of the 2011-2015 and 2016-2020 strategic plans,[65] and was welcomed by the organization's donors at the 22nd Meeting of the MRC Council.[66]

Nonetheless, given the parochial political and economic interests and dynamics, and historical contexts among the riparian countries, implementing the MRC public participation strategy effectively has been, and will continue to be, confronting for the organization. For example, the fact that there are no common interests for water usage, that there is unequal power relation, and that there are unequal benefit sharing among members are some of these challenging factors. In fact, the rudiment and vague public participation strategy did not happen by chance. While Thailand is chiefly intrigued by water for irrigation and favors Chinese dam construction in the upstream so that it can divert and suck up additional water from the Chinese dams without having to build ones for itself, Laos, with its long-time vision of becoming the "battery of Southeast Asia,"[67] is predominantly interested in hydropower development and seeks to attract hydropower-related investments from China, Thailand, and Vietnam.[5] Both Laos and Thailand favor no strict rules on dam construction and water diversion, and prefer a loose cooperative structure. Plus, the fact that there is a categorization of participants in the public participation strategy has left a lot of room for the riparian governments to manipulate the MRC as a primary vehicle or, as Mitchell calls it, the "object of development", to achieve and sustain their developmental goals.[68]

Although the MRC has appeared to extend and include what Gaventa calls "invited spaces" of participation,[69] this participation has occurred only in the form

---

63 MRC. 2010a; MRC. 2010b. State of the basin report. Vientiane: Mekong River Commission Secretariat; MRC. 2008. Stakeholder consultation on MRC's Basin Development Plan Phase 2 (BDP2) and its inception report. Vientiane: Mekong River Commission Secretariat.

64 MRC. 2014. Prio consultation for the poposed Don Sahong Hydropower Project. Vientiane: Mekong River Commission Secretariat; MRC. 2011d. Prior consultation project review report: Volume 2 – stakeholder consultations related to the proposed Xayaburi dam project. Vientiane: Mekong River Commission Secretariat.

65 MRC. 2016b. *MRC Strategic Plan 2016-2020*. Vientiane: Mekong River Commission Secretariat; MRC. 2011b. *MRC Strategic Plan 2011-2015*. Vientiane: Mekong River Commission Secretariat.

66 Australia, European-Union, Denmark, Finland, Germany, IUCN, Japan, Luxemburg, Sweden, Switzerland, United-States, and World-Bank. 2016. Joint Development Partner Statement. In *22nd Meeting of the MRC Council*. Phnom Penh: Mekong River Commission Secretariat.

67 IR. 2008. Power surge: The impacts of rapid dam development in Laos. California International Rivers, 13.

68 T. Mitchell. 1995. "The object of development: America's Egypt." In *Power of development*, edited by J Crush, 129-157. London: Routledge.

69 J. Gaventa. 2004. "Towards participatory governance: Assessing the transformative possibilities." In *Participation: From tyranny to transformation? Exploring new approaches to aprticipation in development*, edited by S Hickey and G Mohan, 25-41.(London: Zed Books), 35.

of one-way consultation, "window-dressing ritual, where people are primarily perceived as statistical abstractions, and participation is measured by how many come to meetings".[70] Seldom are their voices taken for serious consideration. Nor are they informed of the reasons why a decision is made or what factors are taken into account.[71] This was clearly exhibited during the official six-month public consultation process of the Xayaburi Hydropower Project under the MRC *Procedures for Notification, Prior Consultation and Agreement* (PNPCA), where seven national stakeholder consultations took place in all MRC member states, except Laos.[72] Laos, as the proposing country, took no follow-up action, if any, on concerns and suggestions raised at the public consultations, and simply proceeded with the construction of the dam.[73] This brought further protests organized by CSOs and communities in some of the member countries that led the Lao government to address the issues of fish migration and sediments by installing additional fish passages.[74]

Also, CSOs who have been vocal and critical to the Mekong development are almost always excluded from MRC consultations, particularly at the national level. Even though the MRC Secretariat would want to establish dialogues with some prominent critics, such as the International Rivers, etc., some of the member governments tend to view this engagement with the groups as hampering the economic development aim of the MRC through large-scale infrastructure development.[75] Such an undemocratic way of treating participation from the public as subverting to economic development clearly poses a critical threat to the future of sustainable development of water and related resources of the Mekong.

Conclusion

When examining the presented case of the MRC public participation strategy through the lens of a science-policy interface (SPI), we have observed three prominent factors that have facilitated the uptake of this strategy, from which different lessons can similarly be drawn.

First is the political context within the MRC governance, which, arguably, is the most important factor. When the MRC member countries signed the 1995 Mekong Agreement, this means they already acknowledged the political, economic, social, and environmental changes that had taken place in the LMB countries. When adopting the public participation and participatory governance strategies, the JC

---

[70] Sherry R. Arnstein. 1969. "A ladder of citizen participation." *AIP Journal*:216-224, 219.

[71] Chenoweth, Ewing, and Bird. 2002.

[72] MRC. 2011d.

[73] Rieu-Clarke. 2015, 93; Alistair Rieu-Clarke. 2014. "Notification and consultation procedures under the Mekong agreement: insights from the Xayaburi controversy." *Asian Journal of International Law* 5 (01): 143-175.

[74] MRC. 2015. 20 years of cooperation. Vientiane: Mekong River Commission Secretariat.

[75] Hirsch and Jensen. 2006; Sneddon and Fox. 2007.

also recognized the importance of involving the pubic in the work of the MRC and considered it as the prelude to realizing the 1995 Mekong Agreement for sustainable development of the Mekong. This political will has landed strong foundation and support for the strategy to be implemented.

Second are the roles of external influences and evidence. The CSOs, in their role as external influences, used research results from the Pak Mun Hydropower Project and others and recommendations from the World Commission on Dams to direct their lobbying efforts toward the MRC donors and the MRC itself. The donors, also in their role as external influences, used their legitimate power as the funding agencies to put pressure on the MRC to adopt the public participation strategy. In combination, the CSOs and donors created strong and cohesive pressure for the MRC.

Last, but not least, is the role of knowledge brokers, cast by the MRC Secretariat. In this context, the Secretariat served as the intermediary between the CSOs, its donors and the MRC governance body in affecting the public participation strategy uptake. In fact, the CSOs could also be seen as playing this role by way of bringing research evidence and voices from the affected communities to the MRC and the donors and advocating for a change.

We have learned that scientific research findings may not necessarily enable a policy uptake by decision-makers although the research may be conducted by a creditable institution. A proper medium needs to be engaged, translating and bringing the findings to the policy-makers,[76] either by peaceful means or, as in this case of the MRC, through campaigns organized by those CSOs. In the event where the public lacks skills necessary to make their voices heard and debate readily on issues that affect them, CSOs have an important role to play on public's behalf. We have also learned that bilateral donor agencies have the positive and potent power to influence the uptake of policy. Moreover, when policy-makers are not willing to adopt an acceptable policy suggested by the community of scientists and lay persons, mediators "can stabilize and order interactions"[77] between the two groups, the action of which can affect the chance of policy adoption. We have also learned that despite their vested political, economic, and national interests, MRC member governments can still work together when they have a political will and put the common needs and interests of the basin's residents before them. Most importantly, however, the extent to which the MRC and its Secretariat can promote genuine public participation lies firmly, now and in the foreseeable future, in the hand and level of openness of the member governments that comprise its membership.

---

[76] van den Hove. 2007, 811, 810.

[77] Shardul Agrawala, Kenneth Broad, and David H Guston. 2001. "Integrating climate forecasts and societal decision making: Challenges to an emergent boundary organization." *Science, Technology, and Human Values (Special Issues)* 26 (4):454-477.

Acknowledgements

I would like to thank the Mekong River Commission Secretariat for providing the dam database for the Mekong River Basin and maps. I would also like to thank the Australian Government's Endeavor Postgraduate Scholarship for providing funding support to my study from which this paper was produced.

Bibliography

Agrawala, Shardul, Kenneth Broad, and David H Guston. 2001. "Integrating climate forecasts and societal decision making: Challenges to an emergent boundary organization." *Science, Technology, and Human Values (Special Issues)* 26 (4):454-477.

Amornsakchai, Sakchai, Philippe Annez, Suphat Vongvisessomjai, Sansanee Choowaew, Prasit Kunurat, Jaruwan Nippanon, Roel Schouten, Pradit Sripapatrprasite, Chayan Vaddhanaphuti, Chavalit Vidthayanon, Wanpen Wirojanagud, and Ek Watana. 2000. Pak Mun Dam Mekong River basin Thailand: World Commission on Dams case study. Cape Town: Secretariat of the World Commission on Dams.

Arnstein, Sherry R. 1969. "A ladder of citizen participation." *AIP Journal*:216-224, 219.

Australia, European-Union, Denmark, Finland, Germany, IUCN, Japan, Luxemburg, Sweden, Switzerland, United-States, and World-Bank. 2016. Joint Development Partner Statement. In *22nd Meeting of the MRC Council*. Phnom Penh: Mekong River Commission Secretariat.

Bruch, Carl, Libor Jansky, Mikiyasu Nakayama, Kazimierz A Salewicz, and Angela Cassar. 2005. "From theory to practice: An overview of approaches to involving the public in international watershed management." In *Public participation in the governance of international freshwater resources*, edited by Carl Bruch, Libor Jansky, Mikiyasu Nakayama and Kazimierz A Salewicz, 3-18. Tokyo: United Nations University Press.

Campbell, Ian C. 2011. "Managing international river basins: Successes and failures of the Mekong River Commission." In *Water Resources Planning and Management*, edited by R. Quentin Grafton and Karen Hussey, 724-740. Cambridge: Cambridge University Press.

Campbell, Ian C. 2009. "The challenges for the Mekong River management " In *The Mekong: Biophysical environment of an international river basin*, edited by Ian Champbell, 403-419. New York: Academic Press.

Cash, D, Clark, W, Alcock, F, Dickson, N, Eckley, N and Jäger, J. 2002. Salience, credibility, legitimacy and boundaries: Linking research, assessment and decision making.

Faculty Research Working Papers Series: RWP02-046. Cambridge: Harvard University.

Chenoweth, Jonathan L., Sarah A. Ewing, and Juliet F. Bird. 2002. "Procedures for ensuring community involvement in multijurisdictional river basins: A comparison of the Murray-Darling and Mekong River Basins." *Environmental Management* 29 (4): 497-509.

Court, Julius, and John Young. 2006. "Bridging research and policy in international development: An analytical and practical framework." *Development in Practice* 16 (1):85-90, 85.

Creighton, James L. 1981. *Public involvement manual: Involving the public in water and power resources decisions*. Cambridge: Abt Books.

Daming, He, and Hsiang-te Kung. 1997. "Facilitating regional sustainable development through integrated multi-objective utilizing management of water resources in the Lancang-Mekong River basin." *The Journal of Chinese Geography* 7 (4):9-21.

Dore, John, and Louis Lebel. 2010. "Deliberation and scale in Mekong region water governance." *Environmental Management* 46:60–80.

Dugan, Patrick J., Chris Barlow, Angelo A. Agostinho, Eric Baran, Glenn F. Cada, Daqing Chen, Ian G. Cowx, John W. Ferguson, Tuantong Jutagate, Martin Mallen-Cooper, Gerd Marmulla, John Nestler, Miguel Petrere, Robin L. Welcomme, and Kirk O. Winemiller. 2010. "Fish migration, dams, and loss of ecosystem services in the Mekong basin." *Ambio* 39 (4):344-348.

Enserink, Bert, and Mariachiara Alberton. 2016. "Public participation in China: Strengths, weaknesses, and lessons learned." *Journal of Environmental Assessment Policy and Management* 18 (1):1-21, 2.

Fischer, F. 1998. 'Beyond empiricism: Policy inquiry in postpositivist perspective', *Policy Studies Journal,* 26, 129-146, 130-131.

Flyvbjerg, B. 2006. 'Social science that matters', *Foresight Europe,* 2, 38-42, 38.

Gaventa, J. 2004. "Towards participatory governance: Assessing the transformative possibilities." In *Participation: From tyranny to transformation? Exploring new approaches to aprticipation in development*, edited by S Hickey and G Mohan, 25-41. London: Zed Books, 35.

Giordano, Meredith A. , and Aaron T. Wolf. 2003. "Sharing waters: Post-Rio international water management." *Natural Resources Forum* 27:163-171.

Guske, A.L., G. Richards, J. Ferretti, E. Kunseler, W. van Enst, and L. Pettibone. 2015, Understanding science-policy interfaces. *In:* Weiland, S and Podhora, A (eds.)

Research gaps impact assessment: Novel perspectives of young researchers. LIAISEoffspring Network, 11-12.

Habermas, J. 1971. *Towards a rational society: student protest, science, and politics,* Beacon Press, Boston, 66.

HDR, and DHI [Danish Hydraulic Institute]. 2015. “Study on the impacts of mainstream hydropower on the Mekong River ("Delta Study"): Final report”. Hanoi: Vietnam's Ministry of Natural Resources and Environment

Healey, P. 2008. ‘The pragmatic tradition in planning thought’, *Journal of Planning Education and Research,* 28, 277-292.

Hensengerth, Oliver. 2009. "Transboundary river cooperation and the regional public good: The case of the Mekong River." *Contemporary Southeast Asia* 31 (2):326, 328-329.

Hesse, M. 2015. 'The science-policy interface', *disP - The Planning Review,* 51, 4-5.

Hirsch, Philip. 2001. "Globalization, regionalization and local voices: The Asian Development Bank and rescaled politics of environment in the Mekong region." *Singapore Journal of Tropical Geography* 22 (3):237–251, 3-5.

Hirsch, Philip, and Kurt Mørck Jensen. 2006. National interests and transboundary water governance in the Mekong. Sydney: The University of Sydney.

Hortle, Kent G. 2009. "Fishes of the Mekong - How many species are there." *Catch and Culture* 15 (2):4-12.

International Rivers [IR]. 2008. Power surge: The impacts of rapid dam development in Laos. California International Rivers, 13.

Jacobs, Jeffrey W. 2002. "The Mekong River Commission: Transboundary water resources planning and regional security." *The Geographical Journal* 168 (4):354-364.

Jacobs, Jeffrey W. 1995. "Mekong Committee history and lessons for river basin development." *The Geographical Journal* 161 (2):135-148.

Jasanoff, S 1994, *The fifth branch: Science advisers as policymakers,* Harvard University Press, Cambridge.

Koetz, T., K.N. Farrell, and P. Bridgewater. 2011. 'Building better science-policy interfaces for international environmental governance: Assessing potential within the Intergovernmental Platform for Biodiversity and Ecosystem Services', *International Environmental Agreements: Politics, Law and Economics,* 12, 1-21, 2.

Kristensen, Joern. 2002. "Civil society and river basin development." *Mekong Update & Dialogue* 5 (2):4-5.

Lebel, Louis, Po Garden, and Masao Imamura. 2005. "The politics of scale, position, and place in the governance of water resources in the Mekong region." *Ecology and Society* 10 (2):1-19.

Lee, Seungho. 2015. "Benefit sharing in the Mekong River Basin." *Water International* 40 (1):139-152.

MacKay, A. 1998. Concepts and process of public participation: Conceptual briefing note. In *Public participation in electric power projects (an emerging issue in Asia)*, edited by UNESCAP. Bangkok.

Matoba, Yasunobu. 1999. "Stakeholder participation and Mekong River Commission." The Regional Seminar on Institutional Options for River Basin Management, Manila.

McNie, E. C. 2007. 'Reconciling the supply of scientific information with user demands: An analysis of the problem and review of the literature', *Environmental Science & Policy,* 10, 17-38.

Milich, L., and R. G. Varady. 1999. "Openness, sustainability and public participation: New designs for transboundary river basin institutions." *Journal of Environment & Development* 17:215-246.

Mitchell, T. 1995. "The object of development: America's Egypt." In *Power of development*, edited by J Crush, 129-157. London: Routledge.

Mostert, Erik. 2003. "The challenge of public participation." *Water Policy* 5 (2):179-197.

Mekong River Commission [MRC]. 2016a. *Integrated water resources management-based Basin Development Strategy 2016-2030 for the Lower Mekong Basin*. Vientiane: Mekong River Commission Secretariat, 25, 2.

MRC. 2016b. *MRC Strategic Plan 2016-2020*. Vientiane: Mekong River Commission Secretariat.

MRC. 2015. 20 years of cooperation. Vientiane: Mekong River Commission Secretariat.

Mekong River Commission Secretariat [MRCS]. 2014a. Hydropower project database. Vientiane: Mekong River Commission Secretariat

MRC. 2014b. Prio consultation for the poposed Don Sahong Hydropower Project. Vientiane: Mekong River Commission Secretariat.

MRC. 2013. *Mekong basin planning: The story behind the Basin Development Plan*. Vientiane: Mekong River Commission Secretariat.

MRC. 2011a. *Integrated water resource management-based Basin Development Strategy 2011-2015 for the Lower Mekong Basin*. Vientiane: Mekong River Commission Secretariat, 32.

MRC. 2011b. *MRC Strategic Plan 2011-2015*. Vientiane: Mekong River Commission Secretariat.

MRC. 2011c. *Planning atlas of the Lower Mekong Basin*. Vientiane: Mekong River Commission Secretariat.

MRC. 2011d. Prior consultation project review report: Volume 2 – stakeholder consultations related to the proposed Xayaburi dam project. Vientiane: Mekong River Commission Secretariat.

MRC. 2010a. Annual report 2010. Vientiane: Mekong River Commission Secretariat.

MRC. 2010b. State of the basin report. Vientiane: Mekong River Commission Secretariat.

MRC. 2008. Stakeholder consultation on MRC's Basin Development Plan Phase 2 (BDP2) and its inception report. Vientiane: Mekong River Commission Secretariat.

MRC. 2003. Public participation in the context of the MRC. Phnom Penh: Mekong River Commission Secretariat, 1, 3-5.

MRCS. 1999. Minutes of the 4th Meeting of the MRC Council (classified). Phnom Penh: Mekong River Commission Secretariat

MRC. 1995a. Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin. Chaing Rai: Mekong River Commission Secretariat, 3.

MRC. 1995b. Annual report 1995. Bangkok: Mekong River Commission Secretariat.

Organisation for Economic Co-operation and Development [OECD]. 2015. Stakeholder engagement for inclusive water governance. In *OECD Studies on Water*. Paris: OCED Publishing, 32.

Owens, S. 2005, 'Making a difference? Some perspectives on environmental research and policy', *Transactions of the Institute of British Geographers,* 30, 287-292, 288.

Ozerola, Gul, and Jens Newig. 2008. "Evaluating the success of public participation in water resources management: Five key constituents." *Water Policy* 10 (4):423.

Pham, Tuan Phan. 2016. "Letter to the editor: The MRC, a platform for cooperation" *The Phnom Penh Post*.

Priscoli, Jerome Delli. 2004. "What is public participation in water resources management and why is it important?" *Water International* 29 (2):221-227.

Razzaque, Jona. 2009. "Public participation in water governance." In *The evolution of the law and politics of water*, edited by J. W. Dellapenna and J. Gupta, 353-371. Springer Netherlands.

Rieu-Clarke, Alistair. 2015. "Transboundary hydropower projects on the mainstream of the Lower Mekong River - The case of public participation and its national implications for basin states." In *Public participation and water resources management: Where do we stand in international law?*, edited by Mara Tignino and Komlan Sangbana, 91-97. Geneva: United Nations Educational, Scientific and Cultural Organization, 93.

Rieu-Clarke, Alistair. 2014. "Notification and consultation procedures under the Mekong agreement: insights from the Xayaburi controversy." *Asian Journal of International Law* 5 (01):143-175.

Smajgl, A. and J. Ward. 2013. 'A framework to bridge science and policy in complex decision making arenas', *Futures,* 52, 52-58, 53.

Sneddon, Chris, and Coleen Fox. 2007. "Power, development, and institutional change: Participatory governance in the Lower Mekong Basin." *World Development* 35 (12): 2161-2181.

Sneddon, Chris, and Coleen Fox. 2006. "Rethinking transboundary waters: A critical hydropolitics of the Mekong basin." *Political Geography* 25 (2):181-202.

Sutton, R. 1999. The policy process: An overview. London: Overseas Development Institute.

van den Hove, Sybille. 2007. "A rationale for science–policy interfaces." *Futures* 39 (7): 807-826, 824, 811, 810.

Vatn, A. 2005. 'Rationality, institutions and environmental policy', *Ecological Economics,* 55, 203-217.

Videria, N., P. Antunes, R. Santos, and G. Lobo. 2006. "Public and stakeholder participation in European water policy: A critical review of project evaluation processes." *European Environment* 16:19-31.

Wolf, Aaron T., Jeffrey A. Natharius, Jeffrey J. Danielson, Brian S. Ward, and Jan K. Pender. 1999. "International river basins of the world." *International Journal of Water Resources Development* 15 (4):387-427.

Young, O. R. 2008. 'Institutions and environmental change. The scientific legacy of a decade of IDGEC research' in*:* Young, O R, King, L A and Schroeder, H (eds.), *Institutions and environmental change: Principal findings, applications, and research*, MIT Press, Cambridge, 3-46.

Ziv, Guy, Eric Baran, So Nam, Ignacio Rodríguez-Iturbe, and Simon A. Levin. 2012. "Trading-off fish biodiversity, food security, and hydropower in the Mekong River Basin." *Proce*